18-22 May 2003, Keystone, Colorado
Updated 28/04/2003

PRESENTATION SYNOPSES

Sunday, 18 May 2003

Sunday 1200 – 1330

Workshop: GeoBase 101

(Location – Torrey's Peak I & II)

Presenter: Colonel Brian Cullis, Chief, HQ USAF Geo Integration Office (HAF GIO)

This workshop is intended to serve as an introduction to the USAF GeoBase program to those who wish to gain a more informed understanding of this new Air Force mission capability. The workshop will begin with a brief history of the GeoBase origins in 2000, followed by a discussion of key GeoBase concepts to include the governing principles, the technical and institutional pillars, and the three operating domains supporting garrison, expeditionary, and strategic basing mission needs.

Workshop: GeoBase Data Model Standardization

(Location – Torrey's Peak III & IV)

Presenter: Mr Daniel Feinberg, HAF GIO

The USAF is developing a standard data model for the GeoBase Common Installation Picture (CIP). Standardizing the CIP data model will ensure a consistent content and organization for installation maps across USAF installations and will facilitate enterprise system integration. This workshop will describe the current status of the standardization effort, the resulting products, how MAJCOMs and installations should utilize the resulting data model, and how MAJCOMs and installations should participate in the development of the standardization effort. A brief overview of the Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) - upon which the standard data model will be based - will be provided and challenges of the standardization effort will be discussed.

Sunday 1400 – 1530

Workshop: GeoBase Leadership

(Location – Torrey's Peak I & II)

Presenter: Colonel Brian Cullis, HAF GIO

Successfully implementing the organizational, procedural, and cultural changes associated with the USAF GeoBase will require leadership from across the commissioned, enlisted, and civil service ranks as well as from contracted staff. This workshop will highlight those strategies and techniques that have proven most effective across all echelons, from the base to the Air Staff, in moving their respective Air Force communities toward the vision of "one installation…one map."

Workshop: SDSFIE GPS Data Dictionary

(Location – Torrey's Peak III)

Presenter: Tobi Sellekaerts, PACAF GIO

The USAF GeoBase program has adopted the Spatial Data Standard for Facilities, Infrastructure, and the Environment (SDSFIE). PACAF has written utilities to facilitate the production of Trimble Pathfinder Office data dictionary (.ddf) files containing SDSFIE entity types, attributes, and list domain values. In addition, PACAF has created a simple HTML-based SDSFIE browser which will run on any CE device with Internet Explorer (i.e. Compaq iPaqs; Trimble's TSCe and GeoXT data collectors). During the workshop, the use of these tools will be demonstrated, which are freely available to the USAF community. Also, participants will be asked to contribute feedback on improvements and future enhancements.

Monday 1330 – 1500

Workshop: GeoReach Standardization

(Location – Torrey's Peak I)

Presenter: Ms Nicole Soltyka, HAF GIO

This workshop will focus on the standardization of GeoReach across ACC, PACAF and USAFE. Standardization issues include architecture, data model and interface. A prototype interface will be presented for comment and review. The workshop will consist of brief presentations followed by discussion.

Workshop: GeoBase 101

(Location – Torrey's Peak II)

Presenter: Colonel Brian Cullis, HAF GIO

This workshop is intended to serve as an introduction to the USAF GeoBase program to those who wish to gain a more informed understanding of this new Air Force mission capability. The workshop will begin with a brief history of the GeoBase origins in 2000, followed by a discussion of key GeoBase concepts to include the governing principles, the technical and institutional pillars, and the three operating domains supporting garrison, expeditionary, and strategic basing mission needs.

Monday 1330 – 1500 (continued)

Workshop: GeoBase Architecture

(Location – Torrey's Peak III)

Presenter: Mr Daniel Feinberg, HAF GIO

This workshop will describe the USAF GeoBase Enterprise Architecture and will discuss challenges associated with implementing the architecture and how to overcome these challenges. The workshop will address the requirements for a GeoBase Enterprise Architecture, what the key elements of the GeoBase Enterprise Architecture include, how GeoBase fits into the Air Force Enterprise Architecture, and how existing base-level GIS/mapping efforts can be extended and utilized as part of the architecture. The workshop will include detailed scenarios describing, in layman's terms, how the GeoBase Enterprise Architecture is executed at any given base and how the architecture facilitates the GeoBase vision of "One Installation, One Map". While this session is open to all attendees, Geo Integration Officers (GIOs) are strongly encouraged to attend this workshop. Attendees may also attend the "Enabling GeoBase Interoperability" workshop, immediately following in the same room, to learn how to implement the GeoBase architecture.

Monday 1530 – 1700

Workshop: Expeditionary Site Mapping

(Location – Torrey's Peak I)

Presenter: Ms Nicole Soltyka, HAF GIO

The workshop will serve as an update on the Expeditionary Site Survey Process (ESSP) and the integration of LOGCAT and GeoReach. Issues discussed include the standardized hardcopy checklist, automated checklist development and data integration efforts. The workshop will consist of brief presentations followed by discussion.

Workshop: GeoBase Leadership

(Location – Torrey's Peak II)

Presenter: Colonel Brian Cullis, HAF GIO

Successfully implementing the organizational, procedural, and cultural changes associated with the USAF GeoBase will require leadership from across the commissioned, enlisted, and civil service ranks as well as from contracted staff. This workshop will highlight those strategies and techniques that have proven most effective across all echelons, from the base to the Air Staff, in moving their respective Air Force communities toward the vision of "one installation…one map."

Workshop: Enabling GeoBase Interoperability

(Location – Torrey's Peak III)

Presenter: Mr Tom McCarty, HAF GIO

Interoperability is a key characteristic of the GeoBase Enterprise Architecture and realizes the Air Force Information Vision to "enable mission capabilities through seamlessly integrated access to the right information anytime, anywhere". The GeoBase Enterprise Architecture enables vendor-neutral, standards-based geospatial data services based on OpenGIS standards. OpenGIS standards create open, common interfaces between geospatial software components eliminating the barriers of vendor-specific data formats, application interfaces and distributed computing protocols. This workshop is geared towards MAJCOM and installation GIOs, managers and technical personnel who want to get an overview of the OpenGIS standards, how they satisfy interoperable requirements and how industry is adopting those standards. Implementation of both ESRI and Intergraph OpenGIS technology will be demonstrated and attendees will participate in a technical discussion.

Workshop: Strategic GeoBase Managers

(Location – Torrey's Peak IV)

*Invitation only

Presenter: Mr Timothy Homan, HAF GIO

The Strategic GeoBase Manager Workshop will provide an opportunity to share data acquisition approaches, lessons learned, resource application, and address future issues for supporting the Base Realignment and Closure (BRAC) 2005 process. This workshop is open to MAJCOM Strategic GeoBase Managers or their designated representative.

Tuesday 0800 – 1130

Session: Opening Plenary

(Location - Red Cloud/Shavano)

The Compass Conference Opening Plenary Session will begin with an overview of the current USAF GeoBase Program from the Headquarters Air Force Geo Integration Office. The current and envisioned impacts through integration of GeoBase capabilities into the warfighting mission will also be presented. Finally, representatives from the US Army and US Navy/Marine Corps will share their ongoing enterprise initiatives in installation geospatial information resources to round out the opening plenary.

Tuesday 1230 – 1400

Session: GeoBase Training Initiatives

(Location – Torrey's Peak I)

1230 – 1300

GeoBase CE Career Field Training

Presenter: SMSgt Patrick D Abbott, Civil Engineering Career Field Manager, HQ AFCESA/CEOF & Mr Judson Englett, GeoBase Program Manager, HQ AFCESA

Description: Headquarters Air Force Civil Engineer Support Agency (HQ AFCESA) has developed a formal and systematic approach for delivering tailored Geospatial and GPS training that meets the needs of the various missions inherent within Civil Engineering (CE). AFCESA has planned an extension to the enlisted Engineering Apprentice course through Air Education and Training Command, integrated GeoBase education and training into the "Silver Flag" contingency training sites and established a cross-functional course through the National Geospatial Intelligence School, and worked with the CE Readiness Board to train and equip deployable Prime BEEF teams to bring the GeoBase capabilities forward.

1300 – 1330

Training at Arms-Length and Keeping a Finger on the Pulse: GeoBase Continuing Education at AMC

Presenter: Dr Charles Kofron, AMC GeoBase Program Manager & Mr Richard Updike, AMC Strategic GeoBase Program Manager

Description: Addressing the issues of training and continuing education continues to be one of the more important goals of AMC's GeoBase implementation plan. With rapid advances in GIS technology and personnel turnover, the MAJCOM is using interactive Internet web meeting services to deliver basic instruction on software technologies, programmatic directions, and provide help-desk services. This approach bridges formal CE career field at and alternative training venues. As the frequency of use increases, AMC expect to involve installation GIOs and functional representatives in ongoing continuing educational programs, which will help sustain the management and leadership components of the GeoBase program.

1330 – 1400

Geospatiality: A Core Competency of the GeoBase Training Program (GBTP)

Presenter: Mr Jared L Ware, NIMA National Geographic Intelligence School

Description: The purpose of this paper is to address "geospatiality" – geospatial principles - as a core competency of the GeoBase training program (GBTP). It is paramount to understand geospatial principles, theory, and applications prior to the implementation of GeoBase as a functional system for military-based GIS and civil engineering. Organizations devote people, time, resources, and money for GIS technology, and the misunderstanding of GIS applications can impact GeoBase implementation. GIS is one of the core technologies supporting GeoBase capabilities where the people involved in the process must understand and implement "geospatiality" into GeoBase.

Session: GeoBase Around the World I - ACC, PACAF, USAFE

(Location – Torrey's Peak II)

Description: Each USAF Major Command (MAJCOM), Direct Reporting Unit (DRU), and Field Operating Agency (FOA) with GeoBase management responsibilities will summarize their GeoBase program implementation efforts, unique mission requirements and how they are addressed within GeoBase program guidelines and architecture, status of legacy and current efforts, and future challenges. Attendees will better appreciate the challenges associated with implementing GeoBase capabilities given the varied and unique requirements across the USAF mission spectrum.

1230 – 1300

Air Combat Command

Presenter: ACC Geo Integration Office

1300 – 1330

Pacific Air Forces

Presenter: PACAF Geo Integration Office

1330 – 1400

US Air Force Europe

Presenter: USAFE Geo Integration Office

Tuesday 1230 – 1400 (continued)

Session: ACES & GeoBase Integration I

(Location - Torrey's Peak III)

1230 – 1300

Eglin Air Force Base GeoBase and ACESPM Future Project Integration

Presenter: Lt Robert P Rose, Eglin AFB & Mr Vincent Sclafani, SAIC

Description: Eglin AFB has developed a GeoBase integration system for Civil Engineering planners to link future projects stored in the Automated Civil Engineering System – Project Management (ACES-PM) database. Historically, the SRMC/MILCON planning process was exclusive to the long-range plans and programs office until briefed to interested parties. Consequently, access to this information has been limited to the project planners in the form of power point presentations. A process was developed allowing planners to manipulate project sites using a web-based mapping tool, automatically link the project locations to the ACES-PM project information, and allowing authorized users to display and query the project information via a web-based map viewer.

1300 – 1330

Yokota's Civil Engineer Planning Information System (CEPIS)

Presenter: Mr Michael D Broten, GeoBase Administrator, 374CES/CEOE

Description: The Civil Engineer Planning Information System (CEPIS) was designed to provide a simple method for tracking information about past, current and planned civil engineering projects at Yokota Air Base, Japan. The system provides fast and reliable access to various project-related databases (including ACES and IWIMS) and also allows for location-based visualization and query. CEPIS benefits the CE planning process and helps avoid duplication of effort. An overview of the architecture and capabilities of this application will be presented.

1330 – 1400

Web-Based Accessed to GeoBase Data Using ArcIMS

Presenter: Ms Angie Kiefer & Mr Vince Sclafini, SAIC

Description: A collaborative effort across multiple USAF commands (AFSOC, AFMC, AETC) was employed to develop a user-friendly interface to GeoBase data using ArcIMS technologies. This system allows any authorized end-user on the installation intranet to display, query, and print spatial and attribute information. The tool allows the end-user to create buffers around selected features, change the display order of features, review all available data sets through a directory tree structure, perform user-friendly data access for typical queries, and easily create hard copy maps. This web-based system also enables the end-user to easily access other AF legacy databases including ACES RP, ACES PM, and MAXIMO. This paper will demonstrate system capabilities and the methods used to develop the application.

Tuesday 1430 – 1600

Session: USAF Academy GeoBase Initiatives

(Location – Torrey's Peak I)

1430 – 1500

Integrating GeoBase Education into the Operational World

Presenter: Major Jeth Fogg, Ph.D., P.E., Geotechnical Division Head, HQ USAFA/DFCE

Description The US Air Force Academy introduces GeoBase concepts to over 1,000 future officers on an annual basis. A key challenge for GeoBase training - at the Academy and across the entire USAF - is to better train and educate future GeoBase users and leaders by developing realistic "operational" scenarios. The evaluation of their educational experience is crucial to understanding how the Academy can improve the GeoBase training experience. This presentation will discuss these issues and briefly present a variety scenarios - including crisis response, large-scale environmental cleanup, and hostile refugee detainment - developed and executed at the US Air Force Academy. A brief assessment of available tools to facilitate these training scenarios will also be provided.

1500 - 1530

Unmanned Vehicle Collaboration Network for GIS applications

Presenter: Major Al White, USAF Academy UAV Research Group

Description: The USAFA Academy is developing a collaboration network that enables multiple students, researchers, and operators to simultaneously connect to real-time and archived video and spatial information. This collaboration network is being designed to expand access to UAV resources in GIS applications.

Session: GeoBase Around the World II - AMC, AFSOC, AFC2ISRC

(Location: Torrey's Peak II)

Description: Each USAF Major Command (MAJCOM), Direct Reporting Unit (DRU), and Field Operating Agency (FOA) with GeoBase management responsibilities will summarize their GeoBase program implementation efforts, unique mission requirements and how they are addressed within GeoBase program guidelines and architecture, status of legacy and current efforts, and future challenges. Attendees will better appreciate the challenges associated with implementing GeoBase capabilities given the varied and unique requirements across the USAF mission spectrum.

1430 – 1500

Air Mobility Command

Presenter: AMC Geo Integration Office

1500 – 1530

Air Force Special Operations Command

Presenter: AFSOC Geo Integration Office

1530 – 1600

Air Force Command and Control & Intelligence, Surveillance, Reconnaissance Center

Presenter: AFC2ISRC Geo Integration Office

Tuesday 1430 – 1600 (continued)

Session: ACES & GeoBase Integration II

(Location – Torrey's Peak III)

1430 – 1500

ACES in GeoBase

Presenter: AFCESA

Description: TBD

1500 – 1530

Workflow Management Through the Tinker AFB Engineer Support 'ACESCADD' Work Management System

Presenter: Mr Michael McHale, 72 ABW/CECE

Description: Information about Engineering Construction projects is essential to keeping the Base Comprehensive Plan up to date. The ACESCADD Work Management System was developed by the Tinker AFB Engineering Support department to manage project and task information for construction projects, major work orders, and customer service requests. Timely updates for building, transportation, and utilities information as a result of construction activities are critical to sustaining the installation map. To perform these updates, technicians require a tool that can track work assignments, query active and recently completed projects, and provide information about the status of as-builts and digital files associated with a project. This project information, which is not contained in the ACESPM data structure, is vital to the coordinated activities of all associates of an Engineering Division. Thus, the GIS technician provides others information through ACESCADD as well as receives information vital to the upkeep of the master data sets. With appropriate work method control, the GIS technician can self sufficiently ensure GIS master data is updated in a timely manner, and show accountability of their work.

Session: USAFE GeoReach Implementation

(Location – Torrey's Peak IV)

1430 – 1530

USAFE GeoReach Implementation

Presenter: Mr Steven L Hames, Senior Software Engineer, & TSgt Scott Ensign, USAFE/CERG GIO

Description: The USAFE GeoBase Program was in place by August 2002 with a Civilian Program Manager and four contract personnel providing GeoBase support to the command. Following a Users Requirements Analysis, mapping of potential forward operating locations began in November 2002 with over fifty maps served on a classified server in March 2003. GeoReach production was co-located with USAFE/Civil Engineering (CE) planners, providing for timely and responsive products to support basing and bed down planning requirements and support to USAFE staff elements. Support to Site Survey Teams and feedback from the field has paved the way for an Expeditionary GeoBase Program in USAFE

Tuesday 1800 - 2130

Dinner Banquet

(Location – Red Cloud/Shavano)

1800 - 2130

Geospatial Technologies: Early Trails, Current Pathways and Roads Ahead

Guest Speaker: Mr William D. Goran, U.S. Army Engineer Research and Development Center

Description: This presentation will look back at some early implementation of GIS and geospatial technologies (especially within DOD), review some of our current technology, approaches and problems, then peer down the road ahead for perspectives on emerging applications.

Wednesday, 21 May 2003

Wednesday 0800 – 0930

Panel Discussion: Vendor Support of OpenGIS Specifications

(Location – Torrey's Peak I)

Moderator: Mr Thomas O McCarty, HAF GIO

Panel Members: HAF GIO, ESRI, Intergraph, AutoDesk, Harvard Design and Mapping, and the Open GIS Consortium.

Description: The GeoBase Enterprise Architecture utilizes vendor-neutral, interoperable standards to serve installation visualization capabilities across the USAF enterprise. Data interface standards from the Open GIS Consortium are key to the GeoBase Enterprise Architecture interoperability strategy. The GeoBase Compass Conference Committee has arranged a panel of OpenGIS experts offering insight on implementing

OpenGIS technology as part of the GeoBase Enterprise Architecture; perspectives on the direction of OpenGIS technology; and an assessment of vendor OpenGIS support. Panelists are familiar with the current GeoBase strategy for interoperability as documented in the GeoBase Enterprise Architecture. The panel discussion will start with a short overview of the GeoBase Enterprise Architecture interoperability strategy and will be followed by panelists presenting their perspective and experiences. The panelists will then be available for questions and discussion following their short presentations.

Session: GeoBase Around the World III - AETC, AFSPC, AFMC

(Location – Torrey's Peak II)

Description: Each USAF Major Command (MAJCOM), Direct Reporting Unit (DRU), and Field Operating Agency (FOA) with GeoBase management responsibilities will summarize their GeoBase program implementation efforts, unique mission requirements and how they are addressed within GeoBase program guidelines and architecture, status of legacy and current efforts, and future challenges. Attendees will better appreciate the challenges associated with implementing GeoBase capabilities given the varied and unique requirements across the USAF mission spectrum.

0800 – 0830

Air Education and Training Command

Presenter: AETC Geo Integration Office

0830 – 0900

Air Force Space Command

Presenter: AFSPC Geo Integration Office

0900 – 0930

Air Force Materiel Command

Presenter: AFMC Geo Integration Office

Session: Information Architecture

(Location – Torrey's Peak III)

0800-0830

GeoBase and Knowledge Management – Enterprise Integration

Presenter: Mr Ken Bristol, 46 TW/XPE

Description: Knowledge management is becoming entrenched in corporate America as the means to help manage the sea of information that all knowledge workers must grapple with everyday. The Air Force, as well, is finding value in tools that provide better access to a vast array of material stored throughout the organization. How will GeoBase interface with the tools of Knowledge Management? What are the similarities with implementation in the organization and integration with business processes? How does GeoBase enter into the KM arena and not get eaten? Suggestions on methods of interfacing with KM implementation will be shared in this presentation.

0830 - 0900

A GeoBase Business Process Re-engineering Case Study

Presenter: Mr Sam Hopper, Principal, Tesseract Technologies

Description: The case study described in this presentation is based on the Air Mobility Command (AMC) effort to generate and field the Common Installation Picture (CIP) across AMC installations. This AMC data collection and manipulation effort emphasizes ensuring that contractor-prepared CIP layers become the live spatial data layers that are used at the installation. A project methodology will be described that facilitates the extraction of existing spatial data maintenance business processes and provides installation level personnel with data maintenance recommendations. Specific details will be presented about the various business processes that have been discovered in the initial phases of the AMC effort. Various business process adjustments that have currently been identified and proposed to AMC installations in this ongoing effort will also be described.

0900 - 0930

Toward a Maturity Model for Garrison GeoBase

Presenter: Mr Rob Buntz, Garrison GeoBase Program Manager, PACAF GIO

Description: As Garrison GeoBase capabilities mature at major installations in PACAF, new ways to measure mission impacts are being explored. This presentation will introduce a notional maturity model for Garrison GeoBase that includes a series of metrics capturing an equal mix of technology and sustainability factors.

Wednesday 0800 – 0930 (continued)

Session: Strategic GeoBase

(Location – Torrey's Peak IV)

0800 – 0830

GCSS-AF Portal Mapping Applications Using GeoBase

Presenter: Dr Will Tracz, Principal Research Scientist, Global Combat Support System - AF

Description: The US Air Force Portal (AFP) provides the warfighter with "personalized, role-based access to timely, accurate, and trusted information; services; and tools for everyone, everywhere to more effectively and efficiently execute the Air Force mission across the full spectrum of military operations and enhance quality of life for all." The AFP, which is part of the GCSS-AF Vision, is in the process of phased rollout, development and expansion across the Air Force. Besides providing a single, secure, web-based point of access to a variety of information, application systems, and databases, the AFP addresses content management, security, search, and metadata issues. Installation maps are being made available via the AFP leveraging the USAF Strategic GeoBase investments and architecture, providing warfighters

convenient, searchable access to limited base facility map information.

0830 – 0900

Strategic GeoBase Data – Legacy, Stewardship and Metadata

Presenter: Mr Richard Olivieri, Strategic GeoBase Manager, ACC GIO

Description: The goal of Strategic GeoBase is to provide the HAF and SAF with support strategic decision planning. Strategic GeoBase CIP data collection efforts emphasize the unique challenges involving data legacy, maintenance of disparate datasets, and fulfilling metadata requirements. As Strategic GeoBase will encompass data supporting sixteen different Air Combat Command (ACC) installations, the standardization, accuracy and currency of each data layer is of great importance.

0900 – 0930

FGDC Metadata – How to do it

Presenter: Mr Nathan Lowry, Strategic GeoBase Manager, AFSPC GIO

Description: This presentation will demonstrate the step-by-step process of preparing Federal Geographic Data Committee (FGDC) Metadata for the six Strategic GeoBase data layers being delivered to the Headquarters Air Force in 2003. The demonstration will emphasize the importance of compiling and organizing information to answer critical questions, and will help attendees develop their technical skills with ESRI's ArcCatalog and the USACOE's CorpsMet95 metadata development tools. Strategies, perspectives, and tips from several federal and state government professionals for developing FGDC Metadata, including the use of the FGDC FAQ style sheet and the development and use of "boiler-plate" templates will be presented.

Wednesday 0800 – 1200

Workshop: High Production GPS Surveying and Automated Drafting of Data

(Location – Crestone Peak I)

0800 - 1200

Presenter: Mr Alan Dragoo & Mr Ken Slaugenhoupt, Trimble Navigation

Description: This class will show how to create a Feature Code Library and send it to a data collector. The class will then go to the field where a site will be surveyed using feature codes. The class will return to the class room, and the data for the site will be transferred to the computer. The site data will be automatically drafted using the Automated Drafting Configuration file.

Wednesday 1000 – 1130

Session: Garrison GeoBase I

(Location – Torrey's Peak I)

1000 – 1030

One Base... One Map at Langley AFB

Presenter: Ms Michelle Tilley Oblinsky, GIS Analyst, Langley AFB

Description: The GeoBase philosophy of "One Base…One Map" holds true at Langley AFB. ESRI's ArcPublisher and ArcReader software are used to distribute maps and information to base personnel. Military and Civilian Personnel of the First Civil Engineer Squadron (1CES) use these maps on a daily basis in briefings to the Squadron and the First Fighter Wing (1 FW) Commanders. One such map shows the progress of 1CES projects throughout the base. This presentation will introduce the workflow used to support 1CES and 1FW as it relates to the guiding principles of GeoBase.

1030 – 1100

Pre-Garrison GeoBase at Little Rock AFB, Arkansas

Presenter(s): Mr Shane Imwalle & Mr Tom Mochty, Woolpert, LLP

Description: Little Rock AFB, Arkansas was presented with two opportunities— to develop GeoBase capabilities – updates to the base comprehensive plan (BCP) as well as the installation of new communications physical plan were planned. Base leadership recognized the importance of up-to-date, accurate geospatial information to support these two important efforts. As a result, large scale digital planimetric and topographic base mapping, GPS utility data collection, subsurface utility engineering, GPS utility data collection, and creation of a GIS user interface were performed. To effectively access the many hard copy drawings of the 314 Civil Engineering Squadron, a facilities inventory database was created to help manage a digital vault management system (DVMS) of scanned record drawings and floor plans. This forerunner to today's Garrison GeoBase capabilities formed a strong foundation for all BCP components and an accurate, effective toolbox for the design and installation of the new communications physical plant.

1100 – 1130

Diamonds from Dirt: Getting to CIP IOC by Squeezing Value out of Legacy Data Sets

Presenter: Mr Greg Roux, Principal, Tesseract Technologies

Description: Uncertainty about origins or reliability of an Air Force Base's AutoCAD Tab Maps have often induced decision-makers into ordering new aerial orthophotography and expensive feature capture and attribution exercises. Air Mobility Command (AMC) opted instead to exploit a reliable, mid-1990's photogrammetric baseline and to update judiciously from current CAD maps, well-maintained facility inventories such as ACES-RP, and new or recent imagery obtained from various regional sources. This approach has

resulted in a reliable and highly economical CIP Initial Operating Capability that "validates" the on-going contributions of base personnel, maximizes completeness and accuracy, and tracks the source and quality of each spatial object appearing in the CIP as an aid to prioritizing additional field verification activities. This session features lessons Learned, discussing practical implementation details, key decisions on SDSFIE-compliant deliverables, and strategies for returning maintenance responsibilities back to base personnel

Wednesday 1000 – 1130 (continued)

Session: GeoBase Around the World IV - AFRC, ANG, USAFA, 11th Wing

(Location – Torrey's Peak II)

Description: Each USAF Major Command (MAJCOM), Direct Reporting Unit (DRU), and Field Operating Agency (FOA) with GeoBase management responsibilities will summarize their GeoBase program implementation efforts, unique mission requirements and how they are addressed within GeoBase program guidelines and architecture, status of legacy and current efforts, and future challenges. Attendees will better appreciate the challenges associated with implementing GeoBase capabilities given the varied and unique requirements across the USAF mission spectrum.

1000 – 1030

Air Force Reserve Command

Presenter: AFRC Geo Integration Office

1030 – 1100

Air National Guard

Presenter: ANG Geo Integration Office

1100 – 1115

United States Air Force Academy

Presenter: USAFA Geo Integration Office

1115 – 1130

11th Wing

Presenter: 11th Wing Geo Integration Office

Session: Information Security

(Location – Torrey's Peak III)

1000 – 1030

Using Open GIS Standard Technology to Integrate, Control and Extend Data Access

Presenter: Mr Jim Aylward, Executive Vice President & co-Founder, Harvard Design & Mapping

Description: Open GIS standards have finally provided a method to integrate and view GIS data from multiple formats on a single map. These standards have been proven effective in federal agency web sites, such as FEMA's HazardMaps.gov, which access hundreds or thousands of map layers on servers worldwide. The continuing development of these standards opens opportunities for GeoBase to instantly link data from the base to local and state governments, and back to headquarters, without regard for data formats. A demonstration of how HazardMaps.gov works and leverages OpenGIS standards will be provided.

1030 - 1100

GeoBase Security Issues & Approaches

Presenter: Dan Hinckley, Senior Systems Architect, Insite Consulting, Inc

Description: This paper presents various practical approaches to creating a secure GeoBase application with ESRI ArcSDE, ArcIMS, and Oracle DBMS. The presentation will address various scenarios for ensuring both external security and internal security (behind the firewall) of GeoBase data. An exploration of layer-level security, layer aggregation security and various other scenarios, including role-based, Single-Sign On (SSO), and the integration with the AF Portal SSO will be included. The ESRI/Oracle suite offers several alternatives to implementing security and it is important to know the issues, benefits, costs, and limitations of each approach.

GeoBase from a Battle Manager's Perspective

Presenter: Mr Jim Reilly, Air Force Research Laboratory (AFRL)

Description: One tool available for use by battle managers is the GeoBase Viewer, a free, open source viewer based on BBN's OpenMap. The CASPOD ACTD (Contamination Avoidance at Seaports of Debarkation Advanced Concept Technology Demonstration) Information Technology Working Group is tailoring the OpenMap capability to allow the warfighter to use GeoBase information with minimal support by GIS experts. This presentation will talk about the use of GeoBase data in response to a NBC or conventional attack from the perspective of the wartime expeditionary user. The warfighter operates with limited hardware, limited bandwidth and limited GIS support. Timeliness can be far more important than attention to detail. On the fly tools for the creation of supplemental layers and attribution, incorporation of loosely geo-referenced data, and versatile layer management are needed.

Workshop: Encroachment Options

(Location - Torrey's Peak IV)

1000 – 1130

Encroachment Options: Data and Analysis Approaches for Characterization and Prediction of Encroachment Impacts on the Installation Mission

Facilitator: Mr William D Goran, U.S. Army Corps of Engineers, Engineer Research and Development Center

Topics of Discussion: This workshop will address options for encroachment analysis around military installations including GIS analysis tools and data, vision inspection, encroachment mitigation analysis, imagery analysis tools and data, interpretation of urban growth around military installations,

simplified difference analysis, modeling options. predicting impacts on the mission over decades, and understanding alternative futures for installations and communities. This workshop will include several presentations and a panel discussion.

Wednesday 1300 – 1700

Workshop: High Production GPS Surveying and Automated Drafting of Data

(Location – Crestone Peak I)

1300 - 1700

Presenter: Mr Alan Dragoo & Mr Ken Slaugenhoupt, Trimble Navigation

Description: This class will show how to create a Feature Code Library and send it to a data collector. The class will then go to the field where a site will be surveyed using feature codes. The class will return to the class room, and the data for the site will be transferred to the computer. The site data will be automatically drafted using the Automated Drafting Configuration file.

Wednesday 1330 – 1500

Session: Strategic Planning for Sustainment

(Location - Torrey's Peak I)

1330 – 1400

The Interdependency of GeoBase Strategy and Tactics

Presenter: Mr Ed Riegelmann, Vice President & GeoBase Program Manager, CH2M HILL

Description: GeoBase is now actively progressing from a conceptual initiative to a sponsored and funded program. Strategic planning continues to play an important role in conceptualizing an overarching program framework for implementing GeoBase at USAF MAJCOMs and installations. Mission, vision, objectives, and tasks form the foundation and load-bearing beams of a GeoBase structure that is solid and everlasting. However, to add purpose, value, and function to the structure, tasks must evolve into implementable actions that provide the mortar, walls, and windows that make the GeoBase structure actionable, useful, and repeatable. This presentation will focus on proven methods for establishing and exploiting logical connections between strategic planning and implementation planning to support GeoBase missions. The presentation will center on key GeoBase program components that are proven implementation success factors. These components will then be linked to implementation tactics that enhance GeoBase adoption and ensure development of strong program management tools

1400 – 1430

GeoBase Sustainability Issues & Metrics

Presenter: Mr Dan Hinckley, Senior Systems Architect, Insite Consulting, Inc.

Description: The key issue for the future of GeoBase is one of sustainability. If GeoBase capabilities cannot be kept current with the latest maps and data it will fail in its primary objective – to be the central repository for "GeoData." There are two primary issues: designing a technical system for sustainability and designing a program for sustainability on the other. This presentation explores the scenarios where the two come together – where approaches to managing a GeoBase sustainability program meet technical approaches to updating and managing the GeoBase maps and data. Secondly, we'll explore various metrics for measuring the effectiveness and cost of each of these approaches.

Session: GeoBase Around the World V - AFCEE, AFCESA, 38EIG

(Location – Torrey's Peak II)

Description: Each USAF Major Command (MAJCOM), Direct Reporting Unit (DRU), and Field Operating Agency (FOA) with GeoBase management responsibilities will summarize their GeoBase program implementation efforts, unique mission requirements and how they are addressed within GeoBase program guidelines and architecture, status of legacy and current efforts, and future challenges. Attendees will better appreciate the challenges associated with implementing GeoBase capabilities given the varied and unique requirements across the USAF mission spectrum.

1330 – 1400

Air Force Center for Environmental Excellence

Presenter: AFCEE Geo Integration Office

1400 - 1430

Air Force Civil Engineer Support Agency

Presenter: AFCESA Geo Integration Office

1430 - 1500

38th Engineering Installation Group

Presenter: 38EIG Geo Integration Office

Session: GeoBase CIP Data Modeling

(Location – Torrey's Peak III)

1330 – 1400

Common Installation Picture – Data Model Standardization Efforts

Presenter: Mr John Standard, Senior Software Engineer, MITRE Corporation & Mr Mark W Cave, GeoReach Integration Program Manager, AFC2ISRC/LG

Description: Creating a standard data model for the GeoBase Common Installation Picture (CIP), using a consistent interpretation of the SDSFIE will reduce training requirements of USAF personal and establish a single interface for functional IT solutions to leverage GeoBase capabilities. This paper presents the status of the CIP Data Model Standardization effort; the project was initiated to produce a

common CIP logical and physical data model across the Total Force. This presentation describes the current state of the project with respect to the scope of effort, development strategy, current and future tasks, schedule, and associated risks. This paper is a summarization of the more detailed "GeoBase Data Model Standardization" workshop offered on Sunday 18 May.

1400 – 1430

Alternatives to Integrating Mission Specific AIS & GeoBase

Presenter: Mr Scott Beattie, GIS Developer/Analyst, CH2M HILL

Description: The GeoBase program has made significant strides in expounding the pillars of its program since it's inception. As the GeoBase program matures GeoBase capabilities will come to fruition at installations and forward operating locations. One of the principle capabilities enabled by GeoBase is the integration and visualization of information located in disparate functionally specific automated information systems (AIS). Architecturally this poses many options and challenges including where to best manage the potentially vast amounts of attribution. Often there exists an overlap between the scope of the SDSFIE and the mission specific data models of the interfaced AIS. Design options for GeoBase and GeoBase enabled applications will be presented that present alternative solutions to meet different mission needs.

1430 – 1500

The Challenges of CIP Development

Presenter: Ms Susan E King, Geospatial Analyst, HQ ACC GIO

Description: The GeoBase vision is "One Installation, One Map"-enabled by the Common Installation Picture (CIP). Key steps in achieving this vision require layer definition, development of a common SDSFIE interpretation, and creation of a compliant data model across sixteen ACC installations. This paper discusses the considerations relevant to the evolution of this process and the challenges of fielding a standard CIP from a wide range of existing data within ACC.

Wednesday 1330 – 1500 (continued)

Session: GeoBase in the Pacific

(Location – Torrey's Peak IV)

1330 – 1400

SBCCOM Joint Service NBCRa Solutions GeoBase Integration for C4ISR, Force Protection, SA, Response and Recovery

Presenter: Mr Charles A Hill, SBCCOM Geospatial SME & Mr William J Ginley, NBC Battlefield Management Team Leader

Description: The migration of legacy GIS-enabled nuclear, biological, chemical, and radiological (NBCRa) mitigation solutions for the Restoration of Operations (RestOps) advanced concept technology demonstration (ACTD) is being transformed by DoD Joint Service initiatives. The US Army Soldier Biological and Chemical Command (SBCCOM) is leveraging the USAF GeoBase Common Installation Picture (CIP), NIMA Commercial Joint Mapping Toolkit (C/JMTK), and Contaminant Avoidance at Seaports of Debarkation (CASPOD) to deliver enhanced command/control (C2), force protection (FP), situational awareness (SA), and response/recovery (R/R) capabilities to an array of scoped decision systems at Air Force installations across the Pacific and other locations worldwide.

An overview of efforts to interface RestOps with the GeoBase CIP in 2002 and projected for 2003 will be presented, to include items such as primary data modeling and interface methodologies.

1400 – 1430

Blending GeoReach and Garrison GeoBase Capabilities at the Numbered Air Force

Presenter: Mr Rob Beachler, GeoBase Administrator, 611ASG GIO

Description: PACAF has established GeoBase capabilities at two of its' Numbered Air Forces (NAFs). The 7th Air Force, Osan AB, is implementing a GeoReach capability to support visualization of potential forward operating locations on the Korean Peninsula. The 11th Air Force, Elmendorf AFB, is developing CIPs for remote radar sites and airfields in Alaska and supporting critical infrastructure protection and homeland defense initiatives at Alaskan Command (ALCOM). This presentation will highlight the implementation and sustainment strategies driving these efforts.

1430 – 1500

GeoBase Toolkit: A common incident response capability leveraging the CIP

Presenter: Mr Rob Buntz, Garrison GeoBase Program Manager, HQ PACAF GIO

Description: In response to widespread interest in porting legacy incident response tools developed in ArcView 3.2 to the ArcGIS platform, PACAF GIO has developed a GeoBase application entitled the GeoBase Toolkit. An overview of the GeoBase Toolkit architecture and capabilities will be provided.

Wednesday 1530 – 1700

Panel Discussion: Perspectives on GeoBase On-Site Support

(Location - Torrey's Peak I)

Moderator: Colonel Brian Cullis, HAF GIO

Description: The USAF GeoBase mission is currently heavily reliant on full-time contracted staffs across all our Major Commands, Direct Reporting Units, Field Operating Agencies, and even many of our installations. This new staffing model has already had major impacts on both the government and commercial sectors. The Chief of the HAF Geo Integration Office will moderate an invited panel from across the commercial sector for their frank opinions on

several key issues as the Air Force looks to formulate a sustainable framework for the long term.

Wednesday 1530 – 1700 (continued)

Session: Systems Architecture

(Location - Torrey's Peak II)

1530 – 1600

Prototyping the Transitional Architecture at Hickam AFB

Presenter: Mr Rob Buntz, Garrison GeoBase Program Manager, HQ PACAF GIO

Description: PACAF GIO has been pursuing certification and accreditation for its GeoBase spiral 2 and 3 Garrison GeoBase solutions since September 2002. This paper will present lessons learned from PACAF experiences documenting our architectures via the C4ISP process at HQ PACAF. PACAF plans for a prototype of the GeoBase transitional Enterprise Architecture at Hickam AFB, HI will be discussed, including strategies for deploying GeoBase services tailored to the 15th Air Base Wing (Hickam AFB) and HQ PACAF users.

1600 – 1630

Building MyGeographyNetwork for GeoBase

Presenter: Yuvraj Mathur, Segment Manager, Cybertech Systems, Inc.

Description: ESRI's Geography Network offers one means of publishing and distributing geospatial information over the Internet. This paper addresses how this technology could be applied to serve installation maps on protected Air Force wide area networks (WAN), recognizing the GeoBase Enterprise Architecture strategy and guidelines. Existing technology makes it possible for Air Force installations to publish their geographic data beyond the base local area network (LAN) firewall - within the guidelines set forth in the "transitional" and "to-be" GeoBase Enterprise Architectures and Air Force information assurance security policies. A technical description of this "*MyGeographyNetwork*" framework and how it can be deployed while adhering to Air Force Enterprise Architecture guidelines will be provided.

Session: Garrison GeoBase II

(Location - Torrey's Peak III)

1530 – 1600

Deploying Geospatial Information in Support of the Strategic GeoBase

Presenter: Mr Bounvilay "O.T." Outhaithany, IT Specialist-System Analyst, Eglin AFB AAC/EM & Mr Dan Weston, Webmaster/GIS Administrator, Eglin AFB AAC/EM

Description: Deploying geospatial information to support the GeoBase capabilities can be practical and cost-effective using current GIS technology. This presentation will illustrate techniques in place at Eglin AFB, FL that provide users with current, accurate, and mission-critical information. Using Internet Explorer, users build maps from Eglin-specific environmental and other mission data. Garrison GeoBase needs are met through the Common Installation Picture (CIP) buildings, roads, and other terrain features. The scope is not limited to the AF installation – local and regional data participation in the framework, providing decision-makers and planners the knowledge base tools to make informed and critical decisions, whether for force protection and homeland defense, mission planning, or urban interface/inter-agency cooperation.

1600 - 1630

ArcGIS Site Selection Tool and BCP Toolbox for Holloman AFB, New Mexico

Presenter: Mr Gregory Hall, GIS Project Manager/Analyst, CH2M HILL

Description: This presentation describes an ArcGIS-based Site Selection Tool to assist planners at Holloman AFB, NM and an ArcGIS-based tool suite to manage and map the GeoBase CIP. The ArcGIS Site Selection tool identifies all possible site locations for a facility, determines the strengths and weaknesses of each site based on numerous factors, and ranks the sites using the Air Force "functional relationship matrix" and other factors. The ArcGIS tool suite is used to administer and maintain the common installation picture (CIP) and generate map products, including those required for the base's General Plan and Base Comprehensive Plan. Both tools will be demonstrated and benefits and challenges will be discussed.

1630 - 1700

Data Quality for SDS Compliant Geodatabases

Presenter: Mr Dale Dunham, Geographic Information Systems, Inc.

Description: GIS data quality been long been an issue as DoD contractors deliver GIS data in a variety of formats, levels of completeness, and compliance with Federal standards. A method for testing, documenting, and maintaining geodatabase data quality will be presented. Combining ESRI's SDE Geodatabase technology, the CADD-GIS Technology Centers' Spatial Data Standard for Facilities, Infrastructure, and Environment (SDSFIE), and GeoData Sentry, a data quality assurance tool can provide data quality assurance. A workflow process will be presented that uses data validation tests designed for SDSFIE compliant geodatabases and provides for data acceptance testing, database certification, and scheduling of periodic validation tests on actively maintained databases

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Session: Data Collection Techniques

(Location – Torrey's Peak IV)

1530 – 1600

GeoBase and GPS

Presenter: SMSgt Patrick D Abbott, Chief, Career Field Manager, HQ AFCESA/CEOF

Description: Headquarters Air Force Civil Engineer Support Agency (HQ AFCESA) will present an overview of the survey grade global positioning systems (GPS) Prime BEEF lead team equipment supply listing with a presentation on how the equipment will be fielded and supported. Equipment capabilities and expectations will be explained. Resource grade GPS equipment usage will also be discussed with sample applications practical to the civil engineering craftsman and other functional areas. Accomplishments within PACAF and AFSPC with hardware and training will be presented with lessons learned and recommendations for the future.

1600 - 1630

From CITS Installation to Quality GIS Data At Sheppard AFB

Presenter: Mr Shane Imwalle, Woolpert, LLP

Description: As Northrop Grumman installed a Combat Information Transport System (CITS) fiber optic network at Sheppard Air Force Base, Woolpert LLP located the new fiber optic lines and any other utilities encountered before trenches were backfilled. This enabled collection of accurate location of the fiber optic network for inclusion in the base Common Installation Picture (CIP). The one-man survey crew utilized Real Time Kinematic GPS and Robot Total Stations coupled with Civil Engineering (CE) data collectors to complete the data collection effort. Accuracy specifications were set at six inches in the horizontal and vertical. At the end of each day, the field crew chiefs performed daily quality assurance procedures, data editing and review, and final formatting.

1630 – 1700

What NIMA brings to Homeland Security and the GeoBase Program

Presenter: Darma L. Bennett, NIMA Staff Officer to HQ AF

Description: NIMA serves many customers ranging from the White House, Congress, policy community, and military community to a number of federal/state agencies. Each customer's specific mission - protecting national security, combating terrorism, implementing national policy, responding to natural disasters, countering illegal drug activity - requires reliable information with a geospatial foundation as the common denominator. NIMA's mission is to provide that timely, relevant, and accurate geospatial foundation - called ***Geospatial Intelligence***. Geospatial intelligence provides data and products on selected urban areas of interest, land and maritime entry and exit points, identification and assessment of foreign threats, and extent and scope of natural and manmade damage.

Wednesday 0700 - 1500

GeoBase Compass Expo Theater

0700 – 0800

Mobile GIS: Using GPS for GIS Data Collection and Maintenance for the Strategic GeoBase program

Presenter: Mr Brian McInnis, Federal/DoD Accounts Manager, Trimble

Description: This presentation will cover the essentials of Mobile GIS. Mobile GIS is the process of moving GIS data into the field for data capture and update. A variety of hardware and software solutions are available for Mobile GIS. This presentation will highlight these solutions and associated applications relevant to the Strategic GeoBase program. There will be an opportunity to test equipment outdoors. Topics will include applications for Mobile GIS in the Strategic GeoBase program, current hardware and software solutions, updating GIS data in the field, seamless data flow between GIS and GPS, integration with GIS Software, and emerging technologies in Mobile GIS.

0800 – 0900

ISTAR - Digital Aerial Imagery for Mapping and Management

Presenter: Mr Chris Barnard, Director, Business Development Group, EarthData International of Maryland

Description: EarthData International of Maryland is the exclusive U.S. source for digital aerial imagery using the ISTAR processing system. EarthData has combined this robust, proven processing system with the state-of-the-art Leica ADS40 digital aerial camera system. When combined, EarthData can offer facilities managers, engineers and GIS professional with aerial imagery and vector information that is truly unique.

0900 – 1000

Geospatial support within modern system and information architectures

Presenter: Mr Robin Parrish, Vice President, Business Development, eSpatial, Inc.

Description: Timely, accurate, shared information is fundamental to the decision-making capability of military leaders. But without the ability to quickly visualize and analyze the multi-layered geospatial context integrated with base/deployed operations, military commanders are handicapped. With USAF trends moving to modern N-Tier architectures the need to support geospatial data within this structure becomes critical. The integration of GeoBase data into a common operation environment for users in the logistics, operations, and intelligence communities is dependant on the following: guaranteeing the integrity of spatially reference data; secure, scalable, maintainable and accessible; low bandwidth, thin client applications. The presentation will discuss ways in which GeoBase data can become an operational data asset to the USAF within the planned architectures.

1000 – 1100

A new hope for Air Force Decision Makers

Presenter: Mr Jim Youker, Director of Military Programs, Space Imaging

Description: The demand for battlespace information by military leaders has never been greater. Air Force leaders require information not only about targets and the attributes of enemy weapons systems but about airfields and critical infrastructure that might be needed to support an expeditionary force. Space Imaging has developed an application that allows the users of visual data bases to build a dissemination tool that can be tailored in a book format to allow Air Force leaders a faster way to make decisions. The GEOBOOK™ uses the book concept to give non-expert GIS users fast, easy and intuitive access to complex GIS information. The application appears as a digital book allowing users to turn pages to see descriptive information, or to interact with the map data using embedded GIS tools and imagery. This presentation will profile the Iraqi Library that was developed by NIMA and the Department of State for use as a visualization tool for post war construction purposes. The GEOBOOK™ concept provides a new tool for military planners to manage both the greater demand for information along with the vast amounts of source data that exist today.

Wednesday 0700 - 1500

(Expo Theater, continued)

1100 – 1200

Airport Mapping Database Global Standard Enhances Commercial Aircraft Surface Movement Safety

Presenter: Mr Dejan M. Damjanovic, Domain Manager, Air & Marine Transportation, Space Imaging LLC

Description: NASA's Langley Research Center, in combination with a number of industry non-profit and for-profit firms, have pioneered a technology known as Synthetic Vision to assist air transport companies from aircraft air and ground accidents. In flight, these could be with other aircraft or high terrain, and on the ground collisions with other aircraft and ground vehicles while conducting surface movement around airport runways and taxiways. Synthetic Vision Systems (SVS), as they are known in the industry, require airfield maps and GPS. In the mid 1990's, international standards didn't exist for building geospatial databases of airports. Several research efforts concluded that satellite imagery, in this case provided by the high-resolution commercial satellite imagery company, Space Imaging, could be used to develop map-accurate images into geospatial databases of airport surfaces. Since no standard model existed and common airport information could not be shared among all participating parties, the American and European aviation technical standard governing bodies established a joint working group that developed an international commercial available standard, officially known as DO-272 in the U.S. and ED-99 in Europe. This standard instructs users on how to construct Airport Mapping Databases (AMDB) for a wide variety of applications.

1200 – 1300

GeoBase Implementation Planning and Workflow

Presenter: Mr Terry Martin, ESRI Defense Team

Description: MAJCOM GIOs face the daunting task of implementing and sustaining GeoBase capabilities. Implementation follows guidelines established in the CONOPS, Strategic Plan, GeoBase Enterprise Architecture, and the 4F9EA Equipment and Supply list for Prime BEEF units. This workshop addresses issues and examples of solutions to the problems (How? Who? Why? When?) associated with the GeoBase implementation process.

1300 – 1400

Digital Sensors for Aerial Photogrammetry

Presenter: Dr Wolfgang Walcher, Director Mapping & GIS, VEXCEL Corporation

Description: Over the past 10 years digital softcopy photogrammetry has all but replaced traditional stereoplotters, while analog aerial film cameras are still state of the art. Its resolution and precision continue to challenge the camera industry. This presentation will describe the requirements for a digital aerial camera to match or exceed the performance of film cameras and compare these against current digital sensors. Currently available commercial pushbroom sensors, small format digital cameras, large-chip digital cameras, and multi-CCD digital cameras were analyzed. It will also be demonstrated that the quality of color film is rather limited, compared to crystal-clear and noise-free digital images with their large color density of up to 14 bit per band.

1400 - 1430

Modern mapping methods- building a better map for GeoBase

Presenter: Mr John Gerhard, Woolpert, LLP

Description: In many cases sources for Common Installation Picture (CIP) geospatial data were current only at the time of data acquisition. New technologies in photogrammetry allow for update of CIP data more quickly and on a regular schedule, or to create entirely new maps. This presentation will highlight LiDAR (Light Detection and Ranging) and photogrammetric data collection technology. LiDAR technology, in conjunction with digital photogrammetry, is the basis of modern mapping. This presentation will review how the technology is used to create the terrain model and extract planimetric features such as buildings, visible utilities, roads, etc. The presentation will also review methodologies used to update existing maps.

1430 – 1500

Beyond GeoBase Spiral 1: New Technologies for Optimized Facility Management Operations

Presenter: Mr Tom Mochty, PS, Partner and Director of the Survey/GPS Division, Woolpert, LLP

Description: This presentation will display how the development of terrestrial laser scanning technologies and web-based GIS applications can be applied with GeoBase geospatial data to further assist Air Force functionals for installation facility management. In this presentation, Woolpert will highlight state-of-the-art laser scanning technologies and their use to develop everything from accurate and economical 2D or 3D floor plans, to 3D models and true-to-life renderings. The presentation will also highlight how this information can be linked to process-oriented web applications, which can significantly assist an installation's facility planners and managers when making daily decisions related to materiel and space resources.

Thursday 22 May 2003

Thursday 0800 – 0930

Session: Garrison GeoBase III

(Location – Torrey's Peak I)

0800 – 0830

Web-based General Plan for Holloman AFB, NM

Presenter: Mr Gregory Hall, GIS Project Manager/Analyst, CH2M HILL

Description: This presentation will present the Web-Based General Plan (WGP) for Holloman AFB, NM. In accordance with Air Force Instruction (AFI) 32-7062, *Air Force Comprehensive Planning*, each Air Force installation is required to develop and maintain a Comprehensive Plan. An essential document of the Comprehensive Plan, the General Plan (GP) is intended to be a "decision making" document and serves as the single, integrated, authoritative reference for existing and future development.

The Holloman AFB WGP will improve access to GP information and facilitate easy updates to the GP. The WGP utilizes a web content manager using ArcIMS for dynamic map presentation and ArcSDE for management of geospatial data. ACES Project Management (PM) and Real Property (RP) data as well as GP archives can be for historical trend analysis. This presentation will demonstrate the WGP and the WGP benefits and obstacles.

0830 – 0900

GeoBase-Enabled AVL

Presenter: Mr Tim Burks, Chief Technical Officer, Insite Consulting, Inc.

Description: This presentation will explore the implementation of a GeoBase application utilizing real-time location data, using an Automated Vehicle Location (AVL) system, Oracle, and ESRI ArcSDE/ArcIMS as a working example. The presentation discusses a variety of issues, both programmatic and technical involved in such an effort, and explore the implications for other GeoBase applications.

0900 – 0930

The Development of Geospatial Tools for Range Sustainment

Presenter: Dr Marshall W Nay, PE-PLS, Northrop Grumman Mission Systems

Description: A conceptual Range Management System (RMS) has been developed based on COTS standard ESRI GIS, with customized menus and processing models for range management and sustainment. The RMS system is built around multiple layers of geospatial data and imagery, to support many different aspects of a range and its environment. A virtual air-to-ground range system has been created in this eGIS format with accompanying functionality to explore a series of encroachment and safety scenarios. The intent of this effort is to achieve range sustainment for DoD operational ranges.

Session: Force Protection Applications

(Location – Torrey's Peak II)

0800 – 0830

MIDAS Demonstrated at Albuquerque/Kirtland AFB Bio-Terrorism Exercise

Presenter: TBD

Description: Under the Defense Threat Reduction Agency (DTRA) Mission Degradation Analysis (MIDAS) program, geospatial data for Kirtland AFB were converted from AutoCAD to shapefiles and seamlessly merged with commercially available GIS data of the Albuquerque metropolitan area in preparation for a bio-terrorism release exercise. Both 2D and interactive 3D-GIS models of the area were generated, enhanced with telecommunications data. MIDAS demonstrated the ability to work with contaminant dispersion modeling tools including HPAC, Urban HPAC and NARAC plume models and the CATS Medical Surveillance Layer. The MIDAS Mission Vulnerability Evaluator, an influence net created by military mission experts, successfully demonstrated event impact on Kirtland AFB mission vulnerability. CLONES and Platts identified key physical assets for subsequent decontamination.

0830 – 0900

Defensor Fortis: A GeoBase Application Supporting Air Base Defense Planning

Presenter: Lt Col Daniel Knox, PACAF/SFO

Description: PACAF Security Forces and PACAF GIO have partnered to develop a GeoBase application to support the Force Protection mission at PACAF installations. An overview of the Defensor Fortis Concept of Operations (CONOPS) architecture and capabilities will be presented.

0900 – 0930

Force Protection Planning Using ArcGIS

Presenter: Mr Dale Dunham, Geographic Information Systems, Inc.

Description: Efficient planning for Force Protection will become critical as the DOD struggles with shifting budgets between Military Operations and Force Protection. Two GIS-based tools that aid this planning process will be presented. SafeSite, a surveillance planning tool, evaluates patrol routes, camera positions, and unattended ground sensors by analyzing visibility footprints. Users see what the sensors see and can lay out the most effective configuration. The Anti-Terrorist Force Protection tool is designed for security planners to interactively locate access control points, reaction forces, and command centers under each Force Protection Condition. These tools allow Security to efficiently plan force protection activities.

Thursday 0800 – 0930 (continued)

Session: Expeditionary Site Mapping

(Location – Torrey's Peak III)

0800 – 0830

Expeditionary Site Survey Process Automation – Integration of GeoReach with the Logistician's Contingency Assessment Tools (LOGCAT)

Presenter: Mr Mark Cave, GeoReach Integration Program Manager, AFC2ISRC/LG

Description: Integration of the forward operating location (FOL) common installation picture (CIP) with the logistics planners Employment Knowledge Base (EKB) Base will assist Commanders with making base bed-down decisions. The interface between the FOL CIP and the EKB will provide additional situational awareness and pre-deployment planning tools for the warfighter. This paper will address the operational and technical integration road maps through a spiral development integration process, an integrated prototype, and issues.

0830 – 0900

GeoBEST Update and Road Ahead

Presenter: SMSgt Patrick D Abbott, Chief, Career Field Manager, Engineering, HQ AFCESA/CEOF

Description: The Base Engineer Survey Tool (GeoBEST) enables a bare base planner to site tents and other assets at a potential deployment site. This presentation will cover updates to the GeoBEST version 2.1 program, released in Apr 03, with slides and a live demonstration, and will preview upcoming changes in version 2.2 due to be released in summer 03. The presentation covers program changes as AFCESA GIO assumes distribution and technical support role for GeoBEST, while PACAF maintains its role as the program development lead. GeoBEST instruction at Silver Flag training exercises and at the GeoBase course at NIMA National Geospatial Intelligence School (NGIS) will also be discussed.

Thursday 1000 - 1130

Session: Closing Plenary

(Location – Red Cloud/Shavano)

Presenter: Colonel Brian Cullis, HAF GIO

Description: The Compass Conference Closing Plenary will include the Headquarters Air Force Geo Integration Office summarizing the conference highlights and outline the immediate way ahead for the USAF GeoBase program, as well as notable late-breaking issues across the larger Department of Defense and national sector.